

Division of Laboratory Medicine

Molecular Microbiology

Hepatitis B virus viral load

Indications for testing:

- Detection of viraemia in patients with chronic hepatitis B infection.
- Investigation of possible transmission of hepatitis B e.g. following exposure to blood or body fluids of an infected patient.
- Monitoring effectiveness of anti-viral therapy in patients with chronic hepatitis B infection.
- Measurement of hepatitis B viral load in e antigen negative hepatitis B infected health care workers who perform exposure prone procedures (Health Service Circular 2000/020).

General information

Collection container (including preservatives): CE marked leak proof container

Specimen type: EDTA blood

Collection: Freshly drawn blood in EDTA

Specimen transport: Ambient or refrigerated

Quantitative PCR

5mL of freshly drawn whole blood in **EDTA** or 2mL of plasma that has been separated within 6 hours of being drawn, and which has not been frozen and thawed. Plasma should be stored at 4°C and dispatched as soon as possible. Haemolysed specimens can be inhibitory; where this is unavoidable, such as with post-mortem samples, the laboratory should be contacted (0161-276-8843). The dynamic range for this assay is 200-10⁹/mL

Hepatitis B infected health care workers: Qualitative PCR

Two samples of a minimum of 10mL of blood in **EDTA** should be taken from the health care worker a week apart, and should be sent separately and as soon as possible after sampling to the laboratory. The laboratory request form should be photocopied locally and both copies sent with the request.

Minimum volume of sample: 3.0 mL

Special precautions: All samples are suitable for overnight refrigeration only, they must not be stored over a weekend

Laboratory information

Measurement units: IU/mL

Dynamic range: The dynamic range for this assay is 10-10⁹ copies/mL

Division of Laboratory Medicine

Molecular Microbiology

Turnaround time for provisional result (working days): 3 days

Turnaround time to final result (working days): 4 days

The results of “in-house” tests will be available within 5 working days after receipt of the specimen in the laboratory, and may be available sooner by prior agreement. Specimens sent from hepatitis B infected health care workers are sent to the Regional Virus Laboratory, Gartnavel General Hospital, Glasgow, where they are divided and an aliquot sent to the Birmingham PHE Laboratory. Both specimens from the health care worker are tested in parallel in the same test run in both laboratories, and the final result is the mean of all results on both samples. Test runs are done in batches and for this reason turnaround is at least 30 days from receipt of the second specimen in the laboratory.

Clinical information

Clinical decision points: Not applicable

Factors known to significantly affect the results: None known

(Last updated December 2014)